What is UNEP Live?

UN system-wide open platform of environmental information designed for global, regional and national data sharing and assessment
UN system-wide platform providing access to open data at national and regional and global levels from official sources, citizen and volunteered data, big data, and sensor-webs based on common tagging, open standards and a UN system-wide data policy and a range of analytical, mapping, spatial information, visualisation, improved translation and search functions and publishing tools via local and cloud services
To facilitate:
streamlined exchange and sharing of up-to-date data, information, assessments and knowledge amongst UNEA member countries, research networks, communities of practice, major groups, indigenous peoples and civil society

enlarging the knowledge base for global environmental policy through community and mesh networking and strengthened assessment methodologies

global efforts to build capacity in knowledge management
Current status

- Global/My Country, My Region
- Environmental Data Explorer and indicator development
- Thematic content
- My UNEP Live
- National Reporting Toolkits
- Networking and sustainable communities
GLOBAL/MyRegion/MyCountry

Combines the most up-to-date information taken directly from the global, regional and national provider with UNEP’s assessments, reports and analyses

Users can access:
• Country profiles
• Maps and satellite imagery
• Charting of indicators of environmental performance
• Live services
• Links to national website
• UNEP publications Reports, Global South South, TEEB
• Other country related publications
• Knowledge providers
• Latest knowledge
• Apps
• InforMEA
• International Waters
• Multimedia
MyUNEPLive

- **Access to data** and ability to build communities for **Open Access reports**, data, articles
- **Explore** interactive maps and data
- **Contribute** your environmental data and observations/geo-spatial content to share with others
- **Create** customised e-books and products and share them with others
- **Citizen Science platforms**: collect and compile environmental data from diverse sources and transform that data into relevant information
Regional Air Pollution Monitoring Networks

NADP — National Atmospheric Deposition Program
CAPMoN — Canadian Air Pollution Monitoring Network
EMEP — European Monitoring and Evaluation Programme
REAP — Regional Air Pollution Programme
NEASPEC — North East Asian Symposium on Air Pollution Control
LTP — Land-Transport Programme
HAZE — High Altitude and Long Range Emissions
MALÉ — Mediterranean Atmospheric Long-range Experiment
IDAF — IGAC/DEBITS/Africa

MO/GAW

LBA — Large-scale Biosphere-Atmosphere Experiment in Amazonia
Eye on Earth January 2014

Migration to UNEP Live

Mapping functions

Citizen science Watches

Global data services

Interactive books
Collaboration and co-operation

Mesh networking

Rapid assessments

Open access research communities

Dynamic translation

Collaboration and co-operation
Engaging Researchers & Citizens – social media integration
By January 2014, the following *showcases* will go live:

**National Platforms:** projects with Tanzania Live, Kenya Live, Ethiopia Live, UAE Live to develop national platforms in which each country retains the responsibility to manage and quality assure the data they publish. Users can find the most up-to-date information that countries have published.

**National showcase: Air quality/climate and health:** Users will be able to find data and information about air quality in their country and have the option of comparing data of neighboring cities/countries with similar priority challenges. It will include an analysis from UNEP on the air-quality-climate-health inter-linkages.
Showcases

The Arctic Demonstrating the **Sustaining Arctic Observing Networks (SAON)** for data delivery and harmonization, demonstration of regional trends and information overlays; exploring availability of socio economic data and if applicable related necessary additional partnerships. It will also include a UNEP analysis providing and update of key and emerging issues in the Arctic.

**Air quality/climate and health:** Users will be able to find data and information about air quality in their country and have the option of comparing data of neighboring cities/countries with similar priority challenges. It will include an analysis from UNEP on the air-quality-climate-health inter-linkages.
Next showcases

Global showcase: Global Forest Watch - users can access near-real-time satellite monitoring technology, forest management and company concession maps, protected areas maps, mobile technology, crowd-sourced data, and on-the-ground networks to promote transparency in forests around the world. UNEP analysis (in Kenya for example) will show the contribution forests have to human well-being and the economy.

Global showcase: Biodiversity - linking with the CBD online tool for reporting on obligations of the Aichi targets to showcase global trends. Data collected by the online tool will be available via UNEP Live (expected after February 2014).
Sharing data, knowledge and solutions

• **Open access** wherever possible
• Managed as **close as possible to its source**
• Collected **once and shared with others for many** purposes;
• **Readily available** to public authorities and enable them to easily fulfil reporting obligations;
• **Accessible** to enable end-users to make comparisons at the appropriate geographic scale and to **participate** meaningfully in the development and implementation of environmental policy;
• Available to the general public after due consideration of the **appropriate level of aggregation**, given possible confidentiality constraints, and at national level in the **national language(s)**.
Air quality, Climate and Health

Indicators

**Air quality**
Conc Particulate Matter (PM10)
Ground level ozone

**Climate**
Concentrations of greenhouse gases
Consumption of Fossil Fuels
Emissions of CO2 - Fossil Fuels - Total

**Health**
Incidence of air pollution related diseases

Databases:

**Air quality**
- WHO
- Worldbank,
- Emissions Database for Global Atmospheric Research (EDGAR)

**Climate**
- UNFCC
- International Energy Agency
- Carbon Dioxide Information Analysis Center (CDIAC)
- US Energy Information Administration

**Health**
- WHO

Data providers

**Air quality**
- WHO
- Worldbank,
- Emissions Database for Global Atmospheric Research (EDGAR)

**Climate**
- UNFCC
- International Energy Agency
- Carbon Dioxide Information Analysis Center (CDIAC)
- US Energy Information Administration

**Health**
- WHO

Databases:

**Air quality**

**Climate**
- http://unfccc.int/ghg_data/ghg_data_unfccc/items/4146.php

**Health**
UNEP Live: post 2015

understanding sustainability & prosperity

transforming responses to change

building collective intelligence

creating a regenerative economy
Tracking Development

Human Development Index 2013

Material Footprint per capita 2008

UNDP 2013

Wiedmann et al. PNAS 2013
Science policy perspective

to protect, conserve and enhance **Natural Capital**

life cycle thinking as fundamental to sustainable development
Measuring overall environmental impacts

Environmental mechanism (impact pathway)

- Human Health
- Natural environment
- Natural resources

Pressures (Inventory)
- NOx, Cd, CO₂, CH₄, dioxins, energy, coal, silver ore, land use...
- and other emissions and resource flows...

Impacts (Area of Protection)
- Climate change
- Ozone layer
- Land-use
- Eutrophication
- Resource depletion
- Radiation
- Carcinogens
- Respiratory inorganics
- Acidification
- Toxicity
- Summer smog
- Ecotoxicity

Weighting

- NOx, Cd, CO₂, CH₄, dioxins, energy, coal, silver ore, land use...
- and other emissions and resource flows...

Impact potentials (Midpoints)
EU27 is decoupling growth from emissions

..but shifting overseas impacts of emissions and resource use
Spatial analysis of natural capital

Global level data – e.g. satellite data

Data consistency and comparability

Ecosystem Capital Water Accounts will operate at river basin level

Local level data at 1km², collected by local administrations
Average precipitation patterns (cm/yr)

>125cm/yr
<12cm/yr

Areas of compromised sustainability

Responses to change are emerging everywhere

Sand motor’ beach replenishment, Ter Heijde, Netherlands

Campaign to prevent insect-borne diseases, Emilia-Romagna, Italy

Restoration of the Danube, Kalimok marsh, Bulgaria

Peatland restoration, Lough Boora, Ireland

New grape variety research, Spain

Cantonal Insurance Monopolies, Switzerland
Social intelligence: redefining needs

EU cities adapt project
http://eucities-adapt.eu

More efficient use of water
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